

**Claims:**

5    **I claim**

14.    An access card and authentication system in which a registered user may be verified by the user providing, from an array of data provided, a series of elements which together comprise a specific predetermined verification code which varies on  
10    each and every occasion of use.

15    An access card and authentication system comprising a central computer and one or more card reading terminals provided at remote locations and able to communicate with the central computer in order to verify the validity of the access  
15    card being presented and read at the terminals, such cards being authenticated by the user providing, from an array of data provided, a series of elements which together comprise a specific predetermined verification code which varies on each and every occasion of use.

20    16    The access card and authentication system of claim 15 wherein the array of data comprises digits or letters provided for each day of the month, some or all of which are required as elements of a specific verification code for that day.

25    17.    The access card and authentication system of claim 16 wherein the series of elements together comprising a specific verification code include one or more elements from a Fixed Personal Identification Number ("PIN").

18. The access card and authentication system of claim 17 wherein from the array of data the series of elements comprising the specific verification code for each occasion of use are determined by the day of the week, the date and the month together with one or more codes from the Fixed PIN as indicated by reference to that array, the day and the use number on that day.

19. The access card and authentication system of claim 18 wherein the particular elements of the codes determined as set forth therein are provided by the cardholder by input into a remote terminal connected to a central computer in the particular order prompted by that central computer.

20. The access card and authentication system of claim 19 wherein the particular elements of the codes determined as set forth therein comprise part of a single use payment card number associated with a payment card and payment card system for use on that specific occasion.

21. The access card and authentication system of claim 20 wherein subsequent to the input of the required elements themselves forming part of a single use payment card number as described therein the terminal provides one or more digits to complete a single use payment card number which complies with relevant industry payment card checksum standards.

## CLAIMS

I claim:

1. A method of authenticating a registered user of a system comprising the steps of:
  - registering users of a system by a system controller recording personal details and allocating an account number and Personal Identification Number ;
  - generating, by the system controller, for each registered user a different random plurality of alphanumeric access codes set out in an access code matrix form, having grid lines referenced by identifying characters whereby a code may be uniquely specified ;
  - communicating, by the system controller, to the registered user details of the account number, the Personal Identification Number and the access code matrix, together with specification of the criteria for identifying the appropriate access code on any given occasion ;
  - inputting, by the registered user, the account number plus a specific unique access code consisting of one or more characters from the access code matrix as determined by the criteria for that occasion ;
  - comparing, by the system controller, the access code input with that specified by the criteria ;
  - authenticating a registered user if the access code input corresponded with that specified by the criteria .
2. The method of claim 1 wherein the access code matrix has grid lines comprising characters enabling the specification of a particular access code to be used on any given day in the year and wherein the criteria for the access code input includes the specification of a unique access code applicable on the day and on the occasion of input .

3. The method of claim 2 wherein the criteria for the access code includes one or more digits from the Personal Identification Number .

4. The method of claim 3 comprising the further steps of:

generating, by the system controller, a random order for the component parts of the access code for a registered user ;

communicating, by the system controller, such random order for the component parts of the access code to the registered user as part of the criteria for the input on any given occasion .

5. The method of claim 3 wherein the component parts of the access codes for any given occasion are required to be entered in the random order generated by the system controller and communicated to the registered user during the input phase .

6. A method of authenticating a registered user of a system comprising the steps of:

registering users of a system by a system controller recording personal details and allocating an account number and Personal Identification Number ;

generating, by the system controller, for each registered user a random plurality of alphanumeric access codes in a grid matrix form, having grid lines referenced by characters representing each weekday, each date and each month together with indicated elements of the Personal Identification Number for use on each occasion whereby the component parts of a code for any given date and occasion of use may be uniquely specified ;

generating, by the system controller, a random order for each of the component parts of the required access code ;

communicating, by the system controller, to the registered user details of the account number, the Personal Identification Number and the access code matrix, together

with specification of the criteria for identifying the appropriate access code on any given occasion including the order in which component parts are to be input ;

inputting, by the registered user, the account number plus a specific unique access code in accordance with the criteria, and comprising components input in the specific order communicated to the registered user, comprising characters from the access code grid matrix and including one or more digits from the Personal Identification Number as referenced by the date of use, varying on each occasion if used more than once in one day ;

comparing, by the system controller, the unique access code input with that specified by the criteria and as derived from the access code matrix and the Personal Identification Number ;

authenticating a registered user if the access code input corresponded with that specified by the criteria .

7. The method of claim 6 wherein the criteria specifies a four digit access code derived from digits referenced by the weekday, the date, the month and one from the Personal Identification Number .

8. The method of claim 6 wherein the criteria specifies a five character access code derived from characters referenced by the weekday, the date, the month and two digits from the Personal Identification Number .

9. The method of claim 6 wherein the criteria specifies a six character access code derived from characters referenced by the weekday, the date, the month and three digits from the Personal Identification Number .

10. The method of claim 7 wherein the component parts of the access codes for any given occasion are required to be entered in the random order generated by the system controller and communicated to the registered user during the input phase .

11. The method of claim 8 wherein the component parts of the access codes for any given occasion are required to be entered in the random order generated by the system controller and communicated to the registered user during the input phase .

12. The method of claim 9 wherein the component parts of the access codes for any given occasion are required to be entered in the random order generated by the system controller and communicated to the registered user during the input phase .

13. A method of integrating the authentication of a registered user of a payment card system with the allotment of proxy numbers for secure remote payment card transactions comprising:

~~PROXY~~  
**SINGLE USE PAYMENT CARD**

registering users of a payment card system by a system controller recording personal details, allocating an account number and Personal Identification Number, and recording details of a payment card number or other account with an appropriate debit authority ;

generating, by the system controller, for each registered user a random plurality of alphanumeric access codes in a grid matrix form, having grid lines referenced by characters representing each weekday, each date and each month together with indicated elements of the Personal Identification Number whereby a code for any given date and occasion of use may be uniquely specified together with specification of the criteria for identifying the appropriate access code on any given occasion including the order in which component parts are to be input ;

communicating, by the system controller, to the registered user details of the account number, the Personal Identification Number and the access code matrix, together with specification of the criteria for identifying the appropriate access code on any given occasion including the order in which component parts are to be input ;

inputting, by the registered user, the account number plus a specific unique access code in accordance with the criteria, and comprising components input in the specific order communicated to the registered user, comprising characters from the access code grid matrix and including one or more digits from the Personal Identification Number as referenced by the date of use, varying on each occasion if used more than once in one day ;

comparing, by the system controller, the unique access code input with that specified by the criteria and as derived from the access codes and Personal Identification Number ;

authenticating a registered user if the access code input corresponded with that specified by the criteria, by allotting a unique <sup>SINGLE USE</sup> 16 digit payment card number available for use on that day for one occasion only and including therein the system controller's Bank identification number, the account number, part at least of the access code and a checksum digit ;

charging the user by debit to an actual account for any sums used with that unique

~~proxy number~~

**SINGLE USE PAYMENT CARD**